

**REMARKS**

Applicant's attorney apologizes for not addressing all the sections of the last Office Action. Care has been taken to satisfactorily address all the concerns of the Examiner and to distinguish the cited prior art.

This amendment is filed in response to the Office Action of 12/21/2005. All rejections and objections are respectfully traversed.

Claims 1-12, and 21-35 are in this case.

On page 2 of the Office Action the Examiner rejected independent claims 1, 8, 22, 26 and 31 under 35 U.S.C. 101 as directed to non-statutory subject matter.

As now amended all the independent claims contain the limitation (in somewhat different forms as dictated by the specific claim) of:

*determining if the plurality of sequential characters from more than one sub-expression matches a string, and if so, then executing the corresponding action associated with that matched string.*

The examiner on page 3, recited that to be statutory a claim "must somehow apply, involve, use, or advance the technological arts such as a computer and produce a tangible result." As now amended all the independent claims perform the tangible result of performing the action associated with a matched string.

No new matter is added, see original application page 14, lines 23 et seq. where the added limitation is described in a concrete example.

Claims 1-12 and 21-35 were also rejected under 35U.S.C. 112(second paragraph), as being indefinite. In claims 1, 26, and 31 the segments, "having a corresponding action," "a given regular expression," and in claims 26 and 31 the term "switch."

Each of these phrases has been changed to be more definite.

In claim 2 the phrase “the preceding” and the feature “the step of organizing” in claim 3 is indefinite with no antecedent.

Antecedents have been provided.

In claim 4, “a given section” and the respective sub-expression are found indefinite. The word “given” has been deleted.

In claim 5 the phrase “the section,” was found indefinite. The word “the” has been changed to “a.”

In claim 7 the term “TCAM” was found indefinite; the segment “loaded as a plurality” was found indefinite as was the feature “mismatch pattern having **all** don’t care values” was found indefinite. Emphasis in original.

Claim 7 is amended to satisfy these issues.

In claim 8 the segment “having a corresponding action”; the phrase a given regular expression and the term “preceding were found indefinite. Also, the phrase “the respective sub-expression” and the phrase “mismatch pattern including **all** the don’t care values” were found indefinite. Emphasis in original.

Claim 8 has been amended to overcome the issues raised by the Examiner.

In claim 10 no antecedent was found for “the step of loading the entry.” In claim 11 the term “thereby” was found indefinite. The wording in these claims have been amended to overcome these issues.

In claim 22, the segment “having a corresponding action” and the segment “further including” were found indefinite. Corrections have been made.

A note then saying the dependent claims were rejected for the deficiencies of their parent claims.

The present amendment addresses and amends each of the rejection issues raised by the Examiner. It is thought that these amendments satisfy each of the issues raised.

### **CLAIM REJECTION UNDER U.S.C. 103(a)**

On page 6 of the Office Action claims 1-12, 21-25 and 26-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fritchman (6,785,677) in view of Sherman (6,389,507).

The independent claims 1, 8, 22, 26 and 31 all now have the limitation (in words consistent with the different claims) of:

loading one or more entries of the pattern matching engine with a plurality of the sequential characters **from more than one sub-expression**, wherein the borders are defined by a predetermined sequence of regular expression metacharacters, the entries stored in content addressable memory (CAM) and  
determining that the plurality of sequential characters from more than one sub-expression matches a string,

The import is that several (more than one) sub-expressions are processed in parallel. The advantage is faster operation. No new matter is added, see page 6, lines 24 to page 7, line 4. Also, see page 15, lines 3-11. The idea of parallel processing is common to the application.

This parallel operation on more than one sub-expression is not found in Fritchman or Sherman.

For example in Fritchman, see column 8, lines 38 et seq., followed by lines 52 et seq. At line 38 Fritchman is processing the prefix, than at line 52 (referring to the matching of the prefixed being complete) Fritchman continues “**At this point the initial interior segment is matched against the front of the remaining text of the target string...**”

Later in column 11, line 4, Fritchman matches the suffix to the target string referring to his FIG. 4A, column 11 continues at line 34 with Fritchman describing matching the prefix referring to FIG. 4B, and later at line 66 matching the interior segment referring to FIG. 4C.

Fritchman does not suggest, anywhere in his patent, the matching of the prefixes, suffixes and interior segments in parallel at the same time. As in the present invention the

systems would have to be quite wide to accommodate such a scheme, see FIG. 9 of the present invention where the system is 32 characters wide (see page 19, line 25 in the original application).

Sherman does not help.

Applicant's attorney believes that all the claims in this application are allowable over the cited prior art and a Notice of Allowability is respectfully requested.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

Edwin H. Paul

Edwin H. Paul  
Reg. No. 31,405  
CESARI AND MCKENNA, LLP  
88 Black Falcon Avenue  
Boston, MA 02210-2414  
(617) 951-2500